

**GURU NANAK KHALSA COLLEGE FOR WOMEN,
GUJARKHAN CAMPUS, MODEL TOWN, LUDHIANA**



2022-23

SUPPORTING DOCUMENT

7.1.6

'Quality audits on environment and energy are regularly undertaken by the institution'

INTERNAL GREEN AUDIT

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1. INTRODUCTION:

The green audit aims to analyze environmental practices within and outside the college campuses, which will have an impact on the eco-friendly atmosphere. Green audit can be defined as systematic identification, quantification, recording, reporting and analysis of components of university environment. It was initiated with the motive of inspecting the effort within the institutions whose exercises can cause threat to the health of inhabitants and the environment. Through the green audit, a direction as how to improve the structure of environment and there are include several factors that have determined the growth of carried out the green audit.

1.1. NEED FOR GREEN AUDITING

Green auditing is the process of identifying and determining whether institutions practices are eco-friendly and sustainable. Traditionally, we are good and efficient users of natural resources. But over the period of time excess use of resources like energy, water, are become habitual for everyone especially, in common areas. Green audit regulates all such practices and gives an efficient way of natural resource utilization. In the era of climate change and resource depletion it is necessary to verify the processes and convert it in to green and clean one. Green audit provides an approach for it. It also increases overall consciousness among the people working in institution towards an environment.

1.2. GOALS OF GREEN AUDIT

University has conducted a green audit with specific goals as:

1. Identification and documentation of green practices followed by university.
2. Identify strength and weakness in green practices.
3. Analyze and suggest solution for problems identified.
4. Increase environmental awareness throughout campus
5. Identify and assess environmental risk.
6. Motivates staff for optimized sustainable use of available resources
7. The long-term goal of the Green Audit is to sensitize and make aware the stakeholders of the environment .

1.3. OBJECTIVES OF GREEN AUDIT

1. To examine the current practices of keeping the campus green.
2. To identify and analyze significant environmental issues.
3. Setup goal, vision, and mission for Green practices in campus.
4. Continuous assessment for betterment in performance in green belt of the campus.

1.4. BENEFITS OF GREEN AUDIT TO EDUCATIONAL INSTITUTIONS

There are many advantages of green audit to an Educational Institute:

1. It would help to protect the environment in and around the campus.
2. Recognize the cost saving methods through waste minimization and energy conservation.
3. Empower the organization to frame a better environmental performance.
4. The institution is known in Ludhiana as “fullan vala college” for the lush green lawns it maintains.
5. It is worth mentioning here that the college has maintained more than 1000 pots in which seasonal flowers are grown during every season.

2. OBJECTIVE AND SCOPE

The broad aims/benefits of the eco-auditing system would be

- Environmental education through systematic environmental management approach
- Improving environmental standards
- Benchmarking for environmental protection initiatives
- Sustainable use of natural resource in the campus.
- Financial savings through a reduction in resource use
- Curriculum enrichment through practical experience
- Development of ownership, personal and social responsibility for College campus and its environment
- Enhancement of College profile
- Developing an environmental ethic and value systems in young people.

A Green Audit is a study of the greenery utilization of the campus. It takes a lot of effort on the part of the Greenery Management Team as well as the highly skilled gardeners of the college to maintain greenery in the campus. A green audit is the method of ensuring that the Green Belt of the college has been preserved and taken care of in the best manner.

MEMEBERS OF THE GREENERY COMMITTEE

Internal Green Audit was carried out by Greenery Management team under which tree count of the college was conducted and the area under green belt was measured. Committee for Green Audit includes:

Mrs. Gagneet Pal Kaur

Mrs. Sukhjit Kaur

Mrs. Inderjit Kaur

Ms. Shalini

Mrs. Pavneet

GLIMPSES INTO THE TREE DIVERSITY OF THE COLLEGE CAMPUS

SR.NO	NAME OF THE PLANT	SCIENTIFIC NAME	LOCATION	USES
1	Bach	<i>Acorus calamus</i>	College Herbal Garden	Remedies for many conditions, including anxiety, depression, stress, emotional and physical trauma, cancer, and HIV.
2	Vasaka	<i>Adhatoda vasaca</i>	College Herbal Garden	The plant has manifold curative properties and is an ultimate remedial measure for a lot of health anomalies like breathing trouble, cough, and cold, nasal congestion, sore throat, asthma, bronchitis, other upper respiratory tract infections, bleeding disorders.
3	Aloe	<i>Aloe vera</i>	College Herbal Garden	Aloe vera creams, gels, and ointments contain the clear gel found in aloe vera leaves. These products can be applied topically to treat various skin conditions.
4	Kalmegh	<i>Andrographis paniculata</i>	College Herbal Garden	Used traditionally for the treatment of diseases such as cold, fever, diabetes, hypertension, ulcer, bronchitis, skin diseases, diarrhea, and malaria.
5	Satawar	<i>Asparagus spp.</i>	College Herbal Garden	It's also an adaptogenic herb. Adaptogenic herbs are said to help your body cope with physical and emotional stress.
6	Brahmi	<i>Bacopa monnieri</i>	College Herbal Garden	Brahmi is used for Alzheimer's disease , improving memory, anxiety, attention deficit-hyperactivity disorder (ADHD), allergic conditions, irritable bowel syndrome, and as a general tonic to fight stress.
7	Vajradanti	<i>Barleria prionitis</i>	College Herbal Garden	Vajradanti is why it is used for cough and allergic rhinitis. Often, the juice of the leaf is given along with honey to promote the expulsion of phlegm and provide a soothing effect.

8	Karaunda	<i>Carissa carandas</i>	College Herbal Garden	Immense health benefits, such as preventing heart disease, relieving digestive trouble and curing fevers.
9	Safed musli	<i>Chlorophytum spp.</i>	College Herbal Garden	It is used in traditional systems of medicine including Ayurveda, Unani, and homeopathy. People use safed musli for athletic performance, obesity, erectile dysfunction (ED) , and other conditions
10	Coleus	<i>Coleus forskohlii</i>	College Herbal Garden	Coleus was used for numerous purposes including treatment of rashes, asthma, bronchitis, insomnia, epilepsy, and angina . Coleus is thought to act much like theophylline and has been studied as an effective bronchodilator.
11	Gugal	<i>Commiphora wightii</i>	College Herbal Garden	Guggul gum resin is used for arthritis , lowering high cholesterol, “hardening of the arteries” (atherosclerosis), acne and other skin diseases, and weight loss.
12	Insulin plant	<i>Costus igneus</i>	College Herbal Garden	Consumption of the leaves are believed to lower blood glucose levels , and diabetics who consumed the leaves of this plant said to have a fall in their blood glucose levels
13	Haldi(Mixture)	<i>Curcuma longa</i>	Commerce Block	Curcumin is proven to have anti-inflammatory and immune-boosting properties.
14	Lemon grass	<i>Cymbopogon flexuosus</i>	College Herbal Garden	Lemongrass is used for treating digestive tract spasms, stomachache, high blood pressure, convulsions, pain, vomiting, cough , achy joints (rheumatism), fever, the common cold, and exhaustion.
15	Gudmar	<i>Gymnema sylvestre</i>	College Herbal Garden	The leaves of gudmar are imbued with gymnemic acids, a potent bioactive compound that acts to suppress the taste of sugar by interacting with taste receptors on the tongue, thereby valued as a sugar destroyer and used extensively in the treatment of diabetes.

16	Motia	<i>Jasminum sambac</i>	College Herbal Garden	It is also commonly known as jasmine sambac, Palmarosa oil, and Motia. Due to high medicinal property of Motia Attar, it is often used for the treatment of Asthma and similar sensitivities.
17	Jamalghota	<i>Jatropha gossypifolia</i>	College Herbal Garden	It has potent effects, which results in cramps during defecation and loose stools. Generally, Jamalghota is not indicated in most cases of constipation because of its dangerous effects.
18	Kitchen mint	<i>Mentha viridis</i>	College Herbal Garden	Use as a garnish for cool drinks and fruit desserts. Use dried peppermint leaves, added to boiling water to make a refreshing and digestive tea. Make a yoghurt dressing with chopped mint leaves, natural yoghurt, garlic and salt and pepper for salads especially cucumber salad.
19	Lajwanti	<i>Mimosa pudica</i>	College Herbal Garden	The roots of lajwanti are used to treat leucoderma, angiopathy, metropathy, ulcers, dysentery, swellings, jaundice, bronchial asthma, small pox, strangury, and fevers. Its leaves are useful in hydrocele, hemorrhoids, fistulous withers, scrofula, pinkeye, cuts and bleeds.
20	Curry patta	<i>Murraya koenigii</i>	College Herbal Garden	Curry leaves are widely used in the Indian kitchens in curries, rice, snacks, et al. They are known for their aromatic and distinctive flavour; however, they have more than just appetite-tickling flavour. These leaves are said to have various health and beauty benefits to offer. Curry leaves are herbs that are known to have essential nutrients that help in conditions like weight loss, blood pressure, indigestion, anaemia, diabetes, acne, hair loss.

21	Harsingar	<i>Nyctanthes arboristis</i>	College Herbal Garden	It provides treatments for Dengue, Chikungunya, Malaria and Arthritis. It prevents gas, radical damage, treats cough, fights breathing problems, etc. Additionally it has anti-bacterial, anti-viral and anti-fungal properties which make it fight various infections in the body. It also acts as a laxative in most cases.
22	Holy basil/ Niazb	<i>Ocimum sanctum</i>	College Herbal Garden	The useful parts of the plants are leaves and seeds, these highly aromatic leaves used either fresh or dried for spice. It comprises 65 species, adapted to grow in warm conditions and originally it is native to India and other countries of Asia
23	Pipli/magh	<i>Piper longum</i>	College Herbal Garden	Pippali is an ultimate remedy for all sorts of Kapha aggravating disorders like asthma, bronchitis, COPD, cough and cold symptoms . It provides relief from cough and congestion and also helps in removing phlegm deposits from the respiratory tract.
24	Babchi	<i>Psoralea corylifolia</i>	College Herbal Garden	Bakuchi controls vitiligo spot because it helps in shrinking the white patches, the darker area slowly covers all white skin area, which leads to visible skin changes due to its Kusthaghna and Rasayana properties.
25	Sarpagandha	<i>Rauwolfia serpentine</i>	College Herbal Garden	Sarpagandha is used for the treatment of high blood pressure, insomnia, asthma, acute stomach ache and painful delivery and for mental illness such as neuropsychiatric disorders, psychosis, and schizophrenia. The root of <i>Rauwolfia serpentina</i> is the genuine source drug of Sarpagandha.

26	Akarkara	<i>Spilanthes acmella</i>	College Herbal Garden	Akarkara is widely used to treat indigestion as it effectively enhances the secretion of saliva and digestive enzymes, which aids in better digestion. Indigestion occurs when the kapha levels in a body are elevated and cause a state of agni mandya or a weak digestive fire.
27	Bahera	<i>Terminalia bellirica</i>	College Herbal Garden	Terminalia bellerica is used to protect the liver and to treat respiratory conditions, including respiratory tract infections, cough, and sore throat. Terminalia chebula is used for dysentery. Terminalia bellerica and Terminalia chebula are used as a lotion for sore eyes.
28	Giloe	<i>Tinospora cordifolia</i>	Main College Lawn	All parts of this plant are thought to have health benefits. People have long used it to treat a wide range of issues, including fever, infections, diarrhea, and diabetes .
29	Ajowain	<i>Trachyspermum ammi</i>	College Herbal Garden	"Carom seeds help in maintaining your digestive health. They treat any kind of abdominal discomfort due to indigestion like stomach pain or burning sensation. It increases the appetite for those suffering from loss of appetite."
30	Anantmool	<i>Tylophora indica</i>	College Herbal Garden	According to this shalok anantmool is sweet, unctuous, and heavy and used to improve quality of sperm. It is used to treat various disorders like indigestion, asthma, cough, fever, dysentery, poisoning and menorrhagia .
31	Sadabahar	<i>Vinca rosea</i>	College Herbal Garden	The bulk of active constituents in this flower offers an ultimate remedy for treating respiratory disorders like asthma, bronchitis, COPD, cough and cold symptoms .
32	Nirgundi	<i>Vitex negundo</i>	College Herbal Garden	Nirgundi, also called a five-leaved chaste tree, is a potent ayurvedic plant, that possesses noteworthy therapeutic properties and heals several ailments including asthma, muscle spasms and anxiety.

33	Ashwagandha	<i>Withania somnifera</i>	College Herbal Garden	Ashwagandha contains chemicals that might help calm the brain, reduce swelling, lower blood pressure, and alter the immune system.
34	Kinnow	<i>Citrous Nobilis</i>	College Ground	Aids Digestion. One of the best qualities of kinnows is that it absorbs into stomach and helps in digestion without putting any pressure on the digestive tract
35	Orange	<i>Sinensis</i>	College Ground	They are a good source of vitamin C , as well as several other vitamins, minerals, and antioxidants. For this reason, they may lower your risk of heart disease and kidney stones.
36	Amla	<i>Phyllanthus Emblica</i>	College Ground	Regular intake of amla not only leads to a healthy and glowing skin but also improves eye sight, boosts the immune system, and regulates blood sugar and lipids. Eat as murabba, pickles or candies; but consume it daily.
37	Guava	<i>Psidium Guajava</i>	College Ground	Various parts of the plant, including the leaf and the fruit, are used as medicine. People use guava leaf for stomach and intestinal conditions, pain, diabetes, and wound healing . The fruit is used for high blood pressure.
38	Anjeer Fig	<i>Ficus Carcia</i>	College Ground	Anjeer is a powerhouse of minerals like zinc, manganese, magnesium, iron and thus promotes reproductive health . The high concentration of antioxidants and fibre in this dry fruit protects against hormonal imbalances and post-menopausal issues.
39	Papaya	<i>Carica Papaya</i>	College Ground	The leaves are used to make medicine. Papaya is used for preventing and treating gastrointestinal tract disorders , intestinal parasite infections, and as a sedative and diuretic. It is also used for nerve pains (neuralgia) and elephantoid growths.

40	Jamun	<i>Syzygium Cumini</i>	College Ground	This fruit packs a punch as it has a high antioxidant content, contains diuretic, and has antibacterial and antiscorbutic properties.
41	Neem	<i>Azadirachta Indica</i>	Basket Ball Ground	Neem leaf is used for leprosy , eye disorders, bloody nose, intestinal worms, stomach upset, loss of appetite, skin ulcers, diseases of the heart and blood vessels (cardiovascular disease), fever, diabetes, gum disease (gingivitis), and liver problems. The leaf is also used for birth control and to cause abortions.
42	Tali	<i>Erythrophleum Suaveolens</i>	Basket Ball Ground	Taken as a snuff to relieve headache , as a remedy for other pains and fever, and to cure lung sickness in cattle. The bark has been used as ordeal poison in the same way as <i>Erythrophleum suaveolens</i> , and is also used as a fish and rat poison.
43	Satpatia	<i>Alstonia Scholaris</i>	Basket Ball Ground	The bark is known as ditabark, used by Indians as traditional medicine to treat diarrhoea, dysentery, asthma, and a few types of fevers. It has also been used as an aphrodisiac. When damaged, the bark lets out a sticky milky latex, which is also valued for its medicinal properties.
44	Imli	<i>Tamarindus Indica</i>	Basket Ball Ground	It is also used for constipation, fever, gallbladder disorders, disorders affecting bile flow in the liver, and many other conditions, but there is no good scientific evidence to support these other uses.
45	Deg	<i>Diethylene Glycol</i>	Basket Ball Ground	Commonly used in the commercial preparation of antifreeze, brake fluid, cigarettes, and some dyes. It is an excellent solvent for many relatively insoluble substances.
46	Fox Tail Palm	<i>Wodyetia Bifurcata</i>	Basket Ball Ground	It really does depend on what kind of palm it comes from. The Foxtail palm's fruit is toxic to us and the every part of the sago palm is poisonous to us and animals.

47	Ashoka	<i>Saraca Asoca</i>	Basket Ball Ground	The seed, bark and flowers of Ashoka are mainly used for in menorrhagia, astringent, Diabetes, biliousness, dyspepsia, ulcers and can also be used as uterine stimulant, estrogenic effects, abortifacient.
48	Mulberry	<i>Morus Alba</i>	Basket Ball Ground	Some people place sheets or other materials around mulberry trees to catch the berries as they drop. This makes them quick to collect. While they're often eaten raw, mulberries can also be used to make jams, preserves, pies, and a variety of other delicious treats.
49	Pilken	<i>Ficus Spp.</i>	College Ground	One of the most common uses for bee pollen is the management of seasonal allergies , such as hay fever. It's thought that ingesting pollens will help the body to build resistance to these potential allergens and, in turn, reduce allergy symptoms.
50	China Palm	<i>Livistona Chinensis</i>	Commerce Block	The Chinese fan palm is primarily cultivated for its ornamental value , given its beauty and cold-hardiness.
51	Money Plant	<i>Epipremnum Aureum</i>	Commerce Block	Growing a money plant in the house brings positive energy . Along with this, happiness and prosperity come in the house and the inflow of money increases.
52	Champa	<i>Magnolia Figo</i>	Near Main Gate	Champaka tree rich in medicinal properties is used in several ayurvedic preparations. The leaves, root, root bark, flowers, fruit and oil are used for its medicinal value. The extract of the flowers, leaves and seeds have anti cancer, antimicrobial, antioxidant properties.

Maneeta

Dr. Maneeta Kahlon
Principal

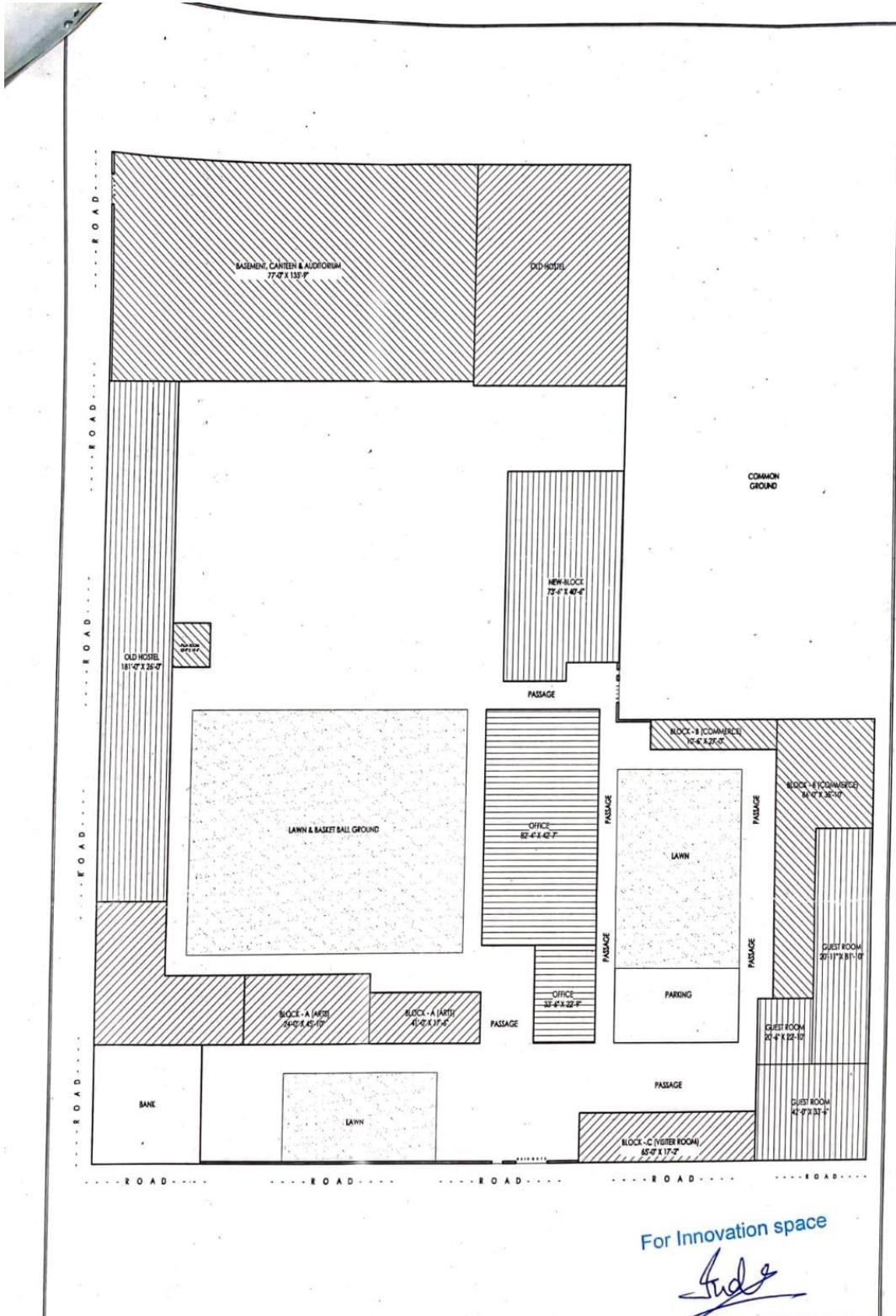
Parveen Arora

Dr. Parveen Arora
Nodal Officer (SAP)

Gagneet Pal Kaur

Mrs. Gagneet Pal Kaur
(Co-ordinator)
SAP - Greenery Management

TOTAL AREA OF GNW CAMPUS



For Innovation space

Inde

PROPOSED COLLEGE FOR M/S. G.N.K.W. COLLEGE AT MODEL TOWN, LUDHIANA	SHEET TITLE COVER AREA GROUND FLOOR PLAN	ORIENTATION	SCALE	DATE 22-04-16	Innovation.space 144, Green Field, Pakhowal Road, Ldh. Ph. +91-98140-00515 e-mail-innovation.space7@gmail.com
			SHEET NO.	OPTION NO.	

TOTAL GREEN COVERAGE AREA OF THE COLLEGE CAMPUS

Total Area of the Trust = 12 Acres
Total College Area = 2.5 Acres

① Humanities Block
Green Area. $51 \times 38 = 1938$ sq ft
 Entrance Lawns
 38 Breadth

② Green Area Lawns
 Surrounded by classrooms
 Humanities Block
 $112 \times 85 = 9520$
 85B

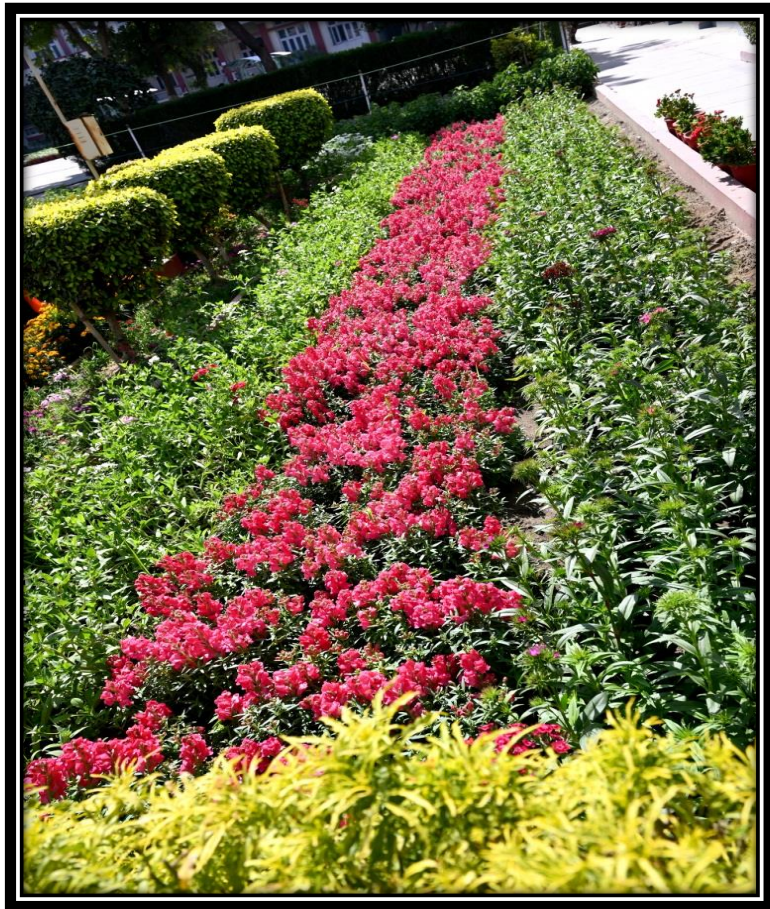
③ Green Area Lawns
 Commerce Block.
 $95 \times 52 = 4940$
 95B

Total Green Area within the Campus = 16398.

④ Common Play Ground of
 GNW, GNPS, GNMT = 500 MTRS x 500
 + GNKR High School (Girls
 + Boys)
 $250,000$ sq mtrs
 $250,000 / 37.5 = 6666.67$ sq mtrs
 $6666.67 / 1000 = 6.66667$ Acres
6.177 Acres

GREEN CAMPUS VIEW OF THE COLLEGE





RECOMMENDATIONS

Following are some of the key recommendations for improving campus environment:

1. An environmental policy document has to be prepared with all the recommendations and current practices carried by the college.
2. A frequent visit should be conducted to ensure that the generated waste is measured, monitored and recorded regularly and information should be made available to administration. Seasonal fruits and flowers should be planted as and when required.
3. Drip System should be installed to avoid wastage and leakage of water.
4. Student oriented activities to inculcate love for nature among them should be conducted.

Although the need for external Green Audit was felt, this will be a comprehensive document which will be done within the next session by an external agency which will serve as a guide for next three years.